

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** A mixture injection port comprising:

a channel tube unit;

a septum covering one end of the channel tube unit and having in which one end of a channel tube is covered by a septum provided with a slit into which a tube member is inserted;
and [[,]]

a circulating member provided in wherein the channel tube unit below the septum, the circulating member comprising:

a plate portion arranged to change direction of flow of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit; and

an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit,

wherein the circulating member is configured to: is provided with a circulating portion for circulate circulating a the first fluid injected from the inserted tube member towards the septum side and then guide the first fluid to the other end of the channel tube unit, and/or circulate the second fluid flowing from the other end of the channel tube unit towards the septum side and then guide the second fluid to or a fluid flowing to the tube member side to the septum side and then guiding the fluid to a downstream side of the channel tube or a top portion of the inserted tube member.

2. **(Currently Amended)** The mixture injection port according to claim 1,

wherein the channel tube unit comprises:

a body portion whose opening is covered by the septum and that is provided with an inner cavity that is a space for accommodating the septum that is deformed by the insertion of the tube member;[[,]] and

a leg portion that is provided with a narrow tube portion having a smaller width than that of the inner cavity, wherein the narrow tube portion is configured to provide and that is in communication between from the inner cavity to and the other end of the channel tube, and wherein the circulating portion has a circulating-plate portion of the circulating member ~~that~~ is mounted on a step ~~generated~~ formed between the inner cavity and the narrow tube portion.

3. **(Currently Amended)** The mixture injection port according to claim 2,
wherein a groove is formed on a surface on the inner cavity side of the plate portion of the circulating member, the groove extending in a direction different from a direction from which a the first fluid is injected from a position with which the top of the inserted tube member is in contact or a position near the top is formed on a surface on the inner cavity side of the circulating plate portion, and wherein the first a fluid is allowed to flow along the groove, so that the direction of flow of the first fluid in which the fluid travels is changed.
4. **(Currently Amended)** The mixture injection port according to claim 2,
wherein the ~~circulating-plate portion of the circulating member~~ is provided with a holding portion on its back face that is engaged with the narrow tube portion and holds the circulating ~~member portion~~ inside the channel tube.
5. **(Currently Amended)** The mixture injection port according to claim 4,
wherein a groove for guiding a the first fluid or the second fluid is formed in the back face of the ~~circulating-plate portion~~ and the holding portion.
6. **(Cancelled)** .
7. **(Currently Amended)** The mixture injection port according to claim 1 ~~6~~,
wherein a groove for guiding a the first fluid or the second fluid is formed on an inner circumferential surface and an outer circumferential surface of the edge portion.

8. **(Withdrawn)** A mixture injection port in which one end of a channel tube is covered by a septum provided with a slit into which a tube member is inserted,
 wherein a fluid-stagnation-preventing portion is provided for filling a gap region generated between an inner wall of an inner cavity formed inside the channel tube and the septum that is deformed to the inner cavity side by insertion of the tube member, when the tube member is inserted into the slit.
9. **(Withdrawn)** The mixture injection port according to claim 8,
 wherein the fluid-stagnation-preventing portion is formed integrally with the septum.
10. **(Withdrawn)** The mixture injection port according to claim 9,
 wherein the fluid-stagnation-preventing portion is a rib provided such that at least one portion of its outer circumference and its top is in contact with the inner wall throughout its entire circumference.
11. **(Withdrawn)** The mixture injection port according to claim 8,
 wherein the fluid-stagnation-preventing portion is provided so as to protrude from the inner wall and be in contact with the septum.
12. **(Withdrawn)** The mixture injection port according to claim 8,
 wherein the inner cavity is provided with a circulating portion for circulating a fluid injected from the inserted tube member or a fluid flowing to the tube member side to the septum side and then guiding the fluid to a downstream side of the channel tube or a top portion of the tube member.
13. **(Withdrawn)** The mixture injection port according to claim 12,
 wherein the channel tube is provided with a narrow tube portion having a smaller width than that of the inner cavity and that is in communication from the inner cavity to the other end of the channel tube, and

the circulating portion has a circulating-plate portion that is mounted on a step generated between the inner cavity and the narrow tube portion.

14. (**Withdrawn**) The mixture injection port according to claim 13,
wherein the circulating portion is provided with an edge portion that protrudes toward the septum in an edge of the circulating-plate portion.

15. (**Currently Amended**) A mixture injection port comprising:
a channel tube unit;
a septum covering one end of the channel tube unit and having in which one end of a
~~channel tube is covered by a septum provided with a slit into which a tube member is inserted;~~
and [L]]
a circulating member provided in an inner cavity of wherein the channel tube unit below
the septum, the circulating member comprising:

a plate portion arranged to change direction of flow of a first fluid injected from
the inserted tube member or a second fluid flowing from the other end of the channel
tube unit towards an edge portion of the circulating member; and

the edge portion that protrudes upwardly towards the septum from a periphery
of the plate portion and is arranged along an inner wall of the channel tube unit,
wherein the edge portion is arranged to further change the direction of flow of the first
fluid or the second fluid towards the septum side.

~~is provided with a circulating path for circulating a fluid injected from the inserted tube~~
~~member or a fluid flowing to the tube member side to the septum side and then guiding the~~
~~fluid to a downstream side of the channel tube or a top portion of the tube member.~~

16. (**Currently Amended**) The mixture injection port according to claim 15,
wherein ~~the circulating path is a channel~~ a first groove is formed on a surface of a the
plate portion of the circulating member provided in an inner cavity of the channel tube and is a
the first fluid flows along the first groove towards the edge portion; and ~~channel for guiding a~~

~~fluid along the surface of the circulating member so as to pass through a region near the septum~~

a second groove is formed on a surface of the edge portion of the circulating member and the first fluid flows along the second groove towards the septum side.

17. **(Withdrawn)** A mixture injection port comprising:

a channel tube unit forming a fluid channel in which an inner cavity and a narrow tube portion having a smaller width than that of the inner cavity are provided in communication with each other;

a septum that is provided with a slit into which a tube member is inserted and that covers an opening on the inner cavity side of the channel tube unit;

a circulating portion provided with a circulating-plate portion that is mounted on a step generated between the inner cavity and the narrow tube portion and with an edge portion that protrudes toward the septum in an edge of the circulating-plate portion; and

a cap for fixing the septum to the channel tube unit,

wherein an annular rib provided such that its outer circumference side or its top is in contact with an inner wall of the inner cavity is provided in the septum on the inner cavity side by integral formation with the septum.

18. **(Withdrawn)** The mixture injection port according to claim 17,

wherein the circulating-plate portion is a substantially disk-shaped plate member, and its diameter is substantially equal to the inner diameter of the inner cavity.

19. **(Withdrawn)** The mixture injection port according to claim 17,

wherein a protrusion is formed on a surface of the slit on the inner cavity side in the septum.

20. **(Cancelled).**

21. **(Currently Amended)** A method for transferring a fluid to or from a body through a mixture injection port, the mixture injection port comprising a channel tube unit and ~~with an end that is covered by a septum covering one end of the channel tube unit and having that is provided with a slit,~~ the method comprising:

inserting a tube member into the slit;

injecting ~~the~~ a first fluid into one of the tube member and a downstream side or a second fluid into an other end of the channel tube unit;

circulating, via a circulating member provided in the channel tube unit below the septum, the first fluid or the second fluid towards the septum side to a side of the septum; and

guiding, via the circulating member, the first fluid to the other end of the channel tube unit or the second fluid to a top portion of the tube member and the downstream side of the channel tube,

wherein the circulating member comprises a plate portion arranged to change direction of flow of the first fluid or the second fluid, and an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit.

22. **(Currently Amended)** The method of claim 21, further comprising:

after injecting the first fluid into the one of the tube member and the downstream side or the second fluid into an other end of the channel tube unit, directing, via the circulating member, the first fluid or the second fluid radially outwardly and toward an intersection between the septum and a wall defining an inner cavity of the mixture injection port,

wherein guiding the first fluid to the other end of the channel tube unit or the second fluid to the top portion of the tube member and the downstream side of the channel tube comprises guiding the first fluid radially inwardly towards the other end of the channel tube unit or guiding the second fluid radially inwardly towards to the other top portion of the tube member and the downstream side of the channel tube.